

Cloud Computing
Mini Homework 2
Ayan Agrawal
Aka398

Creating EC2 instance programmatically

```
C:\Windows\System32\cmd.exe
E:\WVU Work\Cloud Computing\Assignments\Assignment 2>python CC_Sample.py create_instance
Ingress Successfully set [ResponseMetadata: {'RetryAttempts': 0, 'HTTPStatusCode': 200, 'RequestId': '0764f57c-5be9-4506-8e32-ea2ef962b3e6', 'HTTPHeaders': {'transfer-encoding': 'chunked', 'vary': 'Accept-Encoding', 'serve
p': 'AmazonEC2', 'content-type': 'text/xml;charset=utf-8', 'date': 'Thu, 15 Feb 2018 18:53:30 GMT'}}]
(\nNew Instance Created\nInstance ID : ', 'i-089431c436d1a5b30')
E:\WVU Work\Cloud Computing\Assignments\Assignment 2>
```

EC2 Management Console

Secure | https://console.aws.amazon.com/ec2/v2/home?region=us-east-1#Instances:sort=statusChecks

Services | Resource Groups | Ayan Agrawal | N. Virginia | Support

Launch Instance | Connect | Actions

Filter by tags and attributes or search by keyword

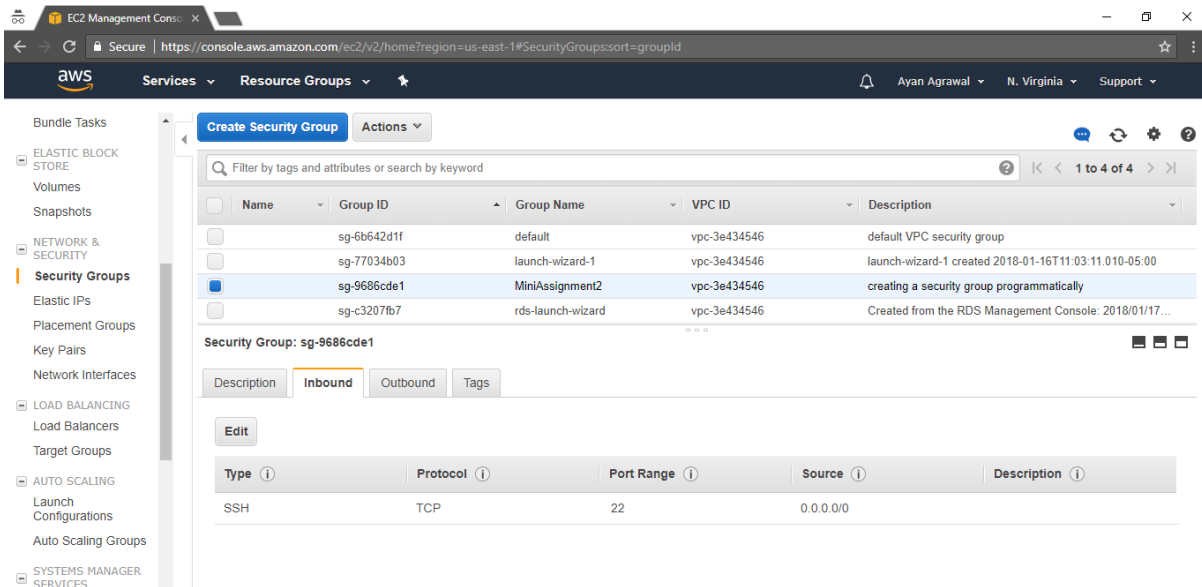
Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4
	i-0576ecf9a9b864b56	t2.micro	us-east-1d	terminated		None		-
	i-0f1ba86cf0dee567f	t2.micro	us-east-1d	terminated		None		-
	i-089431c436d1a5b30	t2.micro	us-east-1d	running	2/2 checks ...	None	ec2-54-146-229-194.co...	54.1...

Instance: i-089431c436d1a5b30 Public DNS: ec2-54-146-229-194.compute-1.amazonaws.com

Description | Status Checks | Monitoring | Tags

Instance ID	i-089431c436d1a5b30	Public DNS (IPv4)	ec2-54-146-229-194.compute-1.amazonaws.com
Instance state	running	IPv4 Public IP	54.146.229.194
Instance type	t2.micro	IPv6 IPs	-
Elastic IPs		Private DNS	ip-172-31-21-121.ec2.internal
Availability zone	us-east-1d	Private IPs	172.31.21.121
Security groups	MiniAssignment2. view inbound rules	Secondary private IPs	
Scheduled events	No scheduled events	VPC ID	vpc-3e434546
AMI ID	amzn-ami-hvm-2017.09.1.20180115-x86_64-gp2 (ami-97785bed)	Subnet ID	subnet-f40527bf
Platform	-	Network interfaces	eth0

Security Group created programmatically:



The screenshot shows the AWS Management Console interface. On the left, the 'Security Groups' link is highlighted under the 'NETWORK & SECURITY' section. The main panel displays a list of security groups. The group 'sg-9686cde1' with the name 'MiniAssignment2' is selected. Below the list, the 'Inbound' tab is active, showing a single rule for SSH access over TCP port 22 from the source '0.0.0.0/0'.

Name	Group ID	Group Name	VPC ID	Description
	sg-6b642d1f	default	vpc-3e434546	default VPC security group
	sg-77034b03	launch-wizard-1	vpc-3e434546	launch-wizard-1 created 2018-01-16T11:03:11.010-05:00
<input checked="" type="checkbox"/>	sg-9686cde1	MiniAssignment2	vpc-3e434546	creating a security group programmatically
	sg-c3207fb7	rds-launch-wizard	vpc-3e434546	Created from the RDS Management Console: 2018/01/17...

Type	Protocol	Port Range	Source	Description
SSH	TCP	22	0.0.0.0/0	

List of Instance:



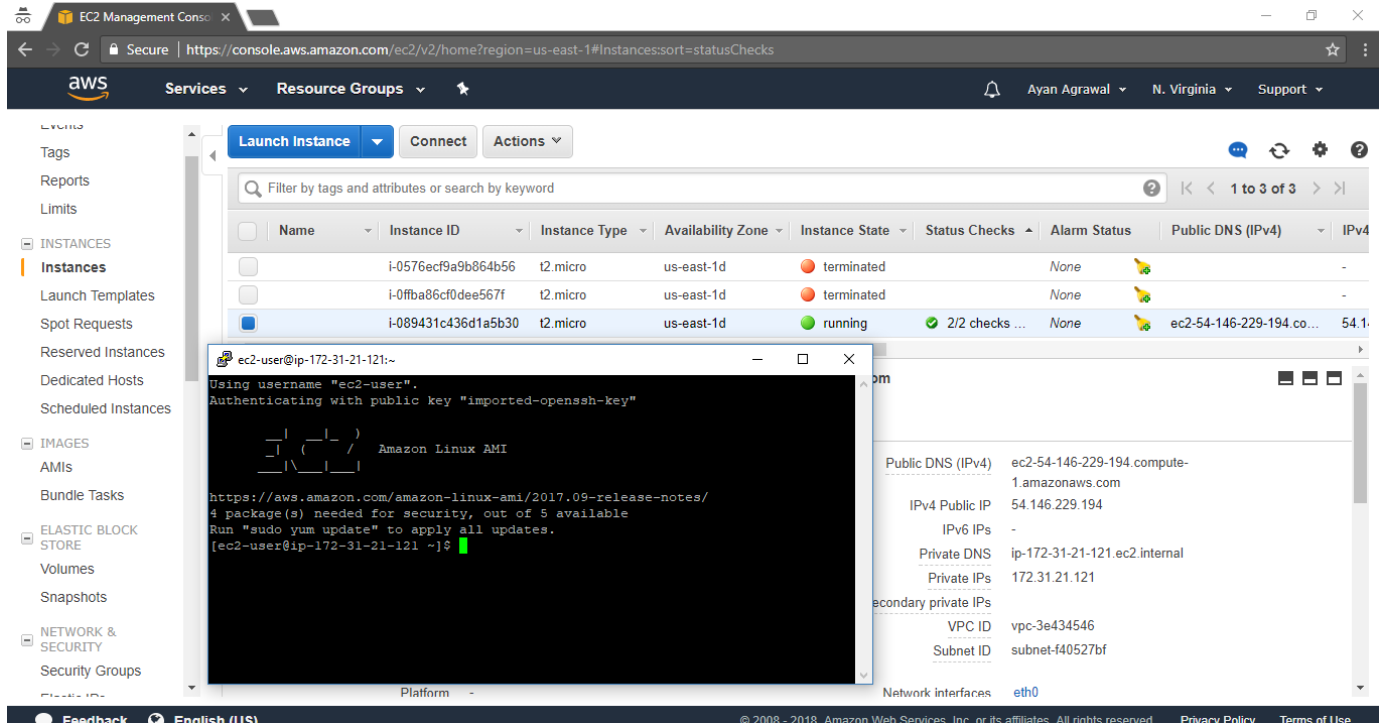
```
E:\WVU Work\Cloud Computing\Assignments\Assignment 2>python CC_Sample.py create_instance
Ingress Successfully Set (ResponseMetadata: {'RetryAttempts': 0, 'HTTPStatusCode': 200, 'RequestId': '0764f57c-5be9-4506-b032-ea2ef962b3e6', 'HTTPHeaders': {'transfer-encoding': 'chunked', 'vary': 'Accept-Encoding', 'server': 'AmazonEC2', 'content-type': 'text/html; charset=UTF-8', 'date': 'Thu, 15 Feb 2018 16:33:39 GMT'}})
(\nNew Instance Created(\nInstance ID : ', 'i-089431c436d1a5b30')
E:\WVU Work\Cloud Computing\Assignments\Assignment 2>python CC_Sample.py list_instances
(\nInstance ID : ', 'i-0ff9a86cf0dee567f', '\nState : ', {'u'Code': 48, 'u'Name': 'terminated'}, '\nLocation : ', 'us-east-id', '\nIP : ', None)
(\nInstance ID : ', 'i-057decf9a986a0b55', '\nState : ', {'u'Code': 48, 'u'Name': 'terminated'}, '\nLocation : ', 'us-east-id', '\nIP : ', None)
(\nInstance ID : ', 'i-089431c436d1a5b30', '\nState : ', {'u'Code': 16, 'u'Name': 'running'}, '\nLocation : ', 'us-east-id', '\nIP : ', '54.146.229.194')
E:\WVU Work\Cloud Computing\Assignments\Assignment 2>
```

Instance ID: i-089431c436d1a5b30

Public IP: 54.146.229.194

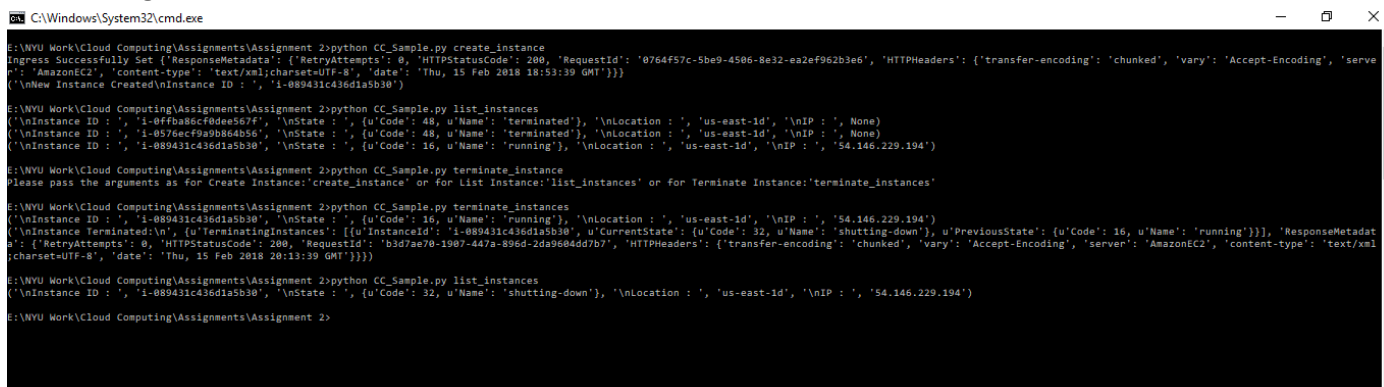
Location: us-east-1d

SSH through putty:



The screenshot displays the AWS Management Console interface. On the left, the navigation menu includes sections like INSTANCES, IMAGES, ELASTIC BLOCK STORE, and NETWORK & SECURITY. The main area shows a list of EC2 instances. One instance, with ID i-089431c436d1a5b30, is highlighted as being in a 'running' state. A terminal window is overlaid on the console, showing the command 'ssh -i "imported-openssh-key" ec2-user@ip-172-31-21-121:~'. The terminal output shows the Amazon Linux AMI logo and the message '4 package(s) needed for security, out of 5 available'. The terminal also shows the command 'Run "sudo yum update" to apply all updates.' and the prompt '[ec2-user@ip-172-31-21-121 ~]\$'.

Terminating Instances:



The screenshot shows a Windows command prompt window with the following commands and output:

```
C:\Windows\System32\cmd.exe

E:\WU Work\Cloud Computing\Assignments\Assignment 2>python CC_Sample.py create_instance
Ingress Successfully Set ('ResponseMetadata': {'RetryAttempts': 0, 'HTTPStatusCode': 200, 'RequestID': '0764f57c-5be9-4506-8e32-ea2ef962b3e6', 'HTTPHeaders': {'transfer-encoding': 'chunked', 'vary': 'Accept-Encoding', 'server': 'AmazonEC2', 'content-type': 'text/xml; charset=UTF-8', 'date': 'Thu, 15 Feb 2018 18:53:39 GMT'}})
('New Instance Created\nInstance ID : ', 'i-089431c436d1a5b30')

E:\WU Work\Cloud Computing\Assignments\Assignment 2>python CC_Sample.py list_instances
('Instance ID : ', 'i-0ffba86cf0dee567f', '\nState : ', {'u'Code': 48, u'Name': 'terminated'}, '\nLocation : ', 'us-east-1d', '\nIP : ', None)
('Instance ID : ', 'i-0576ecf9a9b864b56', '\nState : ', {'u'Code': 48, u'Name': 'terminated'}, '\nLocation : ', 'us-east-1d', '\nIP : ', None)
('Instance ID : ', 'i-089431c436d1a5b30', '\nState : ', {'u'Code': 16, u'Name': 'running'}, '\nLocation : ', 'us-east-1d', '\nIP : ', '54.146.229.194')

E:\WU Work\Cloud Computing\Assignments\Assignment 2>python CC_Sample.py terminate_instance
Please pass the arguments as for Create Instance:'create_instance' or for List Instance:'list_instances'

E:\WU Work\Cloud Computing\Assignments\Assignment 2>python CC_Sample.py terminate_instance
('Instance ID : ', 'i-089431c436d1a5b30', '\nState : ', {'u'Code': 16, u'Name': 'running'}, '\nLocation : ', 'us-east-1d', '\nIP : ', '54.146.229.194')
('Instance Terminated:\n', {'u'TerminatingInstances': [{'u'InstanceId': 'i-089431c436d1a5b30', 'u'CurrentState': {'u'Code': 32, u'Name': 'shutting-down'}, 'u'PreviousState': {'u'Code': 16, u'Name': 'running'}}], 'ResponseMetadata': {'RetryAttempts': 0, 'HTTPStatusCode': 200, 'RequestID': 'b3d7ae70-1907-447a-896d-2d996e4d67b7', 'HTTPHeaders': {'transfer-encoding': 'chunked', 'vary': 'Accept-Encoding', 'server': 'AmazonEC2', 'content-type': 'text/xml; charset=UTF-8', 'date': 'Thu, 15 Feb 2018 20:13:39 GMT'}}))

E:\WU Work\Cloud Computing\Assignments\Assignment 2>python CC_Sample.py list_instances
('Instance ID : ', 'i-089431c436d1a5b30', '\nState : ', {'u'Code': 32, u'Name': 'shutting-down'}, '\nLocation : ', 'us-east-1d', '\nIP : ', '54.146.229.194')

E:\WU Work\Cloud Computing\Assignments\Assignment 2>
```

aws

Services

Resource Groups

Ayan AgrawalN. VirginiaSupport

EC2 Dashboard

Events

Tags

Reports

Limits

INSTANCES

Instances

Launch Templates

Spot Requests

Reserved Instances

Dedicated Hosts

Scheduled Instances

IMAGES

AMIs

Bundle Tasks

ELASTIC BLOCK STORE

Volumes

Snapshots

NETWORK & SECURITY

Launch Instance

Connect

Actions

Filter by tags and attributes or search by keyword

	Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	
<input checked="" type="checkbox"/>		i-089431c436d1a5b30	t2.micro	us-east-1d	terminated		None	
<input type="checkbox"/>		i-08428f2ff606a9504	t2.micro	us-east-1d	stopped		None	

CA\Windows\System32\cmd.exe

python: can't open file 'CC_Sample.py': [Errno 2] No such file or directory
E:\WVU\Work\Cloud Computing\Assignments\Assignment 2>python CC_Sample.py create_instance
Ingress Successfully Set ('ResponseMetadata': {'RetryAttempts': 0, 'HTTPStatusCode': 200, 'RequestId': '14344109-468a-4654-a7c6-c47f12186e53', 'HTTPHeaders': {'transfer-encoding': 'chunked', 'vary': 'Accept-Encoding', 'server': 'AmazonEC2', 'content-type': 'text/xml; charset=UTF-8', 'date': 'Thu, 15 Feb 2018 20:29:58 GMT'}})
('\nNew Instance Created\nInstance ID : ', 'i-08428f2ff606a9504')
E:\WVU\Work\Cloud Computing\Assignments\Assignment 2>python CC_Sample.py list_instances
('\nInstance ID : ', 'i-08428f2ff606a9504', '\nState : ', { 'u'Code': 16, 'u'Name': 'running' }, '\nLocation : ', 'us-east-1d', '\nIP : ', '34.227.24.146')
('\nInstance ID : ', 'i-089431c436d1a5b30', '\nState : ', { 'u'Code': 48, 'u'Name': 'terminated' }, '\nLocation : ', 'us-east-1d', '\nIP : ', None)
E:\WVU\Work\Cloud Computing\Assignments\Assignment 2>python CC_Sample.py list_instances
('\nInstance ID : ', 'i-08428f2ff606a9504', '\nState : ', { 'u'Code': 80, 'u'Name': 'stopped' }, '\nLocation : ', 'us-east-1d', '\nIP : ', None)
('\nInstance ID : ', 'i-089431c436d1a5b30', '\nState : ', { 'u'Code': 48, 'u'Name': 'terminated' }, '\nLocation : ', 'us-east-1d', '\nIP : ', None)
E:\WVU\Work\Cloud Computing\Assignments\Assignment 2>

Elastic IPs		Private DNS	-
Availability zone	us-east-1d	Private IPs	
Security groups	-	Secondary private IPs	-
Scheduled events	-	VPC ID	-
AMI ID	amzn-ami-hvm-2017.09.1.20180115-x86_64-gp2 (ami-97785bed)	Subnet ID	-

Feedback

English (US)

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